What is claimed is:

1. A method of removing a conductive material from a bevel edge of a conductive layer of a workpiece, including a front edge surface of the conductive layer, using an etching solution and an etching electrode in contact with the etching solution comprising the steps of:

rotating the workpiece;

directing a continuous stream of the etching solution to the bevel edge of the workpiece, including the front edge surface of the conductive layer, while rotating the workpiece; and

applying a potential difference between the electrode and the conductive layer of the workpiece while step of directing occurs.

2. The method according to claim 1 wherein the step of directing directs a mild etching solution to the bevel edge.

3. The method according to claim 2 wherein the mild etching solution etches the bevel edge more as a result of the applying of the potential difference than would occur without the application of the potential difference.

4. The method according to claim 2 wherein the mild etching solution is a plating solution.

5. The method according to claim 4, further including the step of depositing a conductor on a top surface of the conductive layer of the workpiece using the plating solution prior to the step of directing.

6. The method according to claim 5, wherein the step of depositing takes place with the workpiece disposed in a lower chamber of a vertical chamber assembly, and the steps of directing and applying take place with the workpiece disposed in an upper chamber of the vertical chamber assembly, and further including the step of

moving the workpiece from the lower chamber to the upper chamber after the step of depositing and before the step of directing.

7. The method according to claim 6 wherein the step of depositing uses an electrochemical mechanical deposition process.

8. The method according to claim 5 wherein the steps of depositing and directing both take place with the workpiece disposed in a single chamber.

9. The method according to claim 5 wherein the steps of depositing and directing both take place with the workpiece disposed in different respective chambers.

10. The method according to claim 4, further including the step of depositing a conductor on a top surface of the conductive layer of the workpiece using a plating solution prior to the step of directing.

11. The method according to claim 10 wherein the step of depositing uses an electrochemical mechanical deposition process.

12. The method according to claim 10, wherein the step of depositing takes place with the workpiece disposed in a lower chamber of a vertical chamber assembly, and the steps of directing and applying take place with the workpiece disposed in an upper chamber of the vertical chamber assembly, and further including the step of moving the workpiece from the lower chamber to the upper chamber after the step of depositing and before the step of directing.

13. The method according to claim 10 wherein the step of depositing uses an electrochemical mechanical deposition process.

14. The method according to claim 4, further including the step of performing an electrochemical mechanical processing on a top surface of the conductive layer of the workpiece prior to the step of directing.

15. The method according to claim 14, wherein the step of performing electrochemical mechanical processing takes place with the workpiece disposed in a lower chamber of a vertical chamber assembly, and the steps of directing and applying take place with the workpiece disposed in an upper chamber of the vertical chamber assembly, and further including the step of moving the workpiece from the lower chamber to the upper chamber after the step of performing electrochemical mechanical processing and before the step of directing.

16. The method according to claim 14 wherein the steps of performing electrochemical mechanical processing and directing both take place with the workpiece disposed in a single chamber.

17. The method according to claim 14 wherein the steps of performing electrochemical mechanical processing and directing both take place with the workpiece disposed in different respective chambers.

18. The method according to claim 2, further including the step of spraying a mist of the mild etching solution onto a top surface of the conductive layer.

19. The method according to claim 18 wherein the steps of spraying and directing both take place with the workpiece disposed in a single chamber.

20. The method according to claim 19 wherein the steps of spraying and directing both take place at the same time.

21. The method according to claim 19 wherein the steps of spraying and directing take place sequentially.

22. An apparatus for performing an edge bevel removal process on a front conductive surface edge of a workpiece comprising:

a chamber;

a moveable and rotatable workpiece holder that holds and rotates the workpiece; and

an edge bevel removal system, the edge bevel removal system including:

at least one edge conductor material removal device for supplying a continuous stream of an etching solution toward at least the front conductive surface edge of the workpiece; and

an electrode adapted to physically contact the continuous stream and for supplying a potential difference between the continuous stream and the front conductive surface of the workpiece.

23. The apparatus according to claim 22 wherein the edge copper removal device comprises at least one nozzle disposed within a position relative to the workpiece such that a continuous stream of the etching solution is directed outwardly toward the front conductive surface edge of the workpiece.

24. The apparatus according to claim 22 further including at least a cleaning nozzle disposed within the chamber for directing a mild etching solution to a front surface of the workpiece.

25. The apparatus according to claim 24 wherein the mild etching solution and the etching solution are the same solution.

26. The apparatus according to claim 22 further including:

another chamber disposed below the chamber;

a moveable guard adapted to separate the another chamber from the chamber when the workpiece is in the chamber and the at least one edge copper removal device is being used; and

a system for processing a front surface of the workpiece disposed in the another chamber.

27. The apparatus according to claim 26 wherein the system is an electrochemical mechanical processing system.

28. The apparatus according to claim 27 wherein the electrochemical mechanical processing system is an electrochemical mechanical deposition system.

29. The apparatus according to claim 22 further including an electrochemical mechanical processing system disposed within the chamber for providing electrochemical mechanical processing on a front surface of the workpiece.

30. The apparatus according to claim 22 wherein the etching solution used by the at least one edge conductor material removal device is also used by the electrochemical mechanical processing system, and

wherein the electrochemical mechanical processing system includes a cavity, an electrode disposed within the cavity, the etching solution disposed within the cavity to provide one electrical path from the electrode to the front surface of the workpiece, a workpiece surface influencing device disposed in proximity to workpiece and through which the etching solution flows and a terminal for providing electrical contact to the workpiece during electrochemical mechanical processing so that a potential difference between the etching solution disposed within the cavity and the workpiece can be maintained.

31. The apparatus according to claim 30 further including a conduit for providing the continuous stream of the etching solution from the cavity to the at least one edge conductor material removal device.

32. The apparatus according to claim 31 further including another terminal that provides electrical contact to the workpiece during edge conductor material removal.

33. The apparatus according to claim 32 wherein the another terminal is the same as the terminal.

34. The apparatus according to claim 32 wherein the another terminal is different from the terminal.

35. The apparatus according to claim 30 wherein the edge copper removal device comprises at least one nozzle disposed in a position relative to the workpiece such that a continuous stream of the etching solution is directed outwardly toward the front conductive surface edge of the workpiece.

36. The apparatus according to claim 30 wherein the electrochemical mechanical processing system is an electrochemical mechanical deposition system.

37. The apparatus according to claim 30 further including a fluid control for controlling a level of the etching solution within the cavity, such that the etching solution has a first level when electrochemical mechanical processing takes place and another lower level within the cavity when edge bevel removal takes place.

38. A method of performing edge bevel removal on a workpiece and cleaning of a front face of a workpiece using a solution comprising the steps of:

rotating the workpiece;

directing a continuous stream of a solution obtained from a source to a bevel edge of a conductive layer of the workpiece while rotating the workpiece to remove conductive material from the bevel edge at a first rate; and

directing a spray of the solution obtained from to the source to a front face of the conductive layer of the workpiece while rotating the workpiece to clean the front face of the workpiece.

39. The method according to claim 38 wherein the steps of directing the stream and directing the spray are performed sequentially.

40. The method according to claim 38 wherein the steps of directing the stream and directing the spray are performed simultaneously.

41. The method according to claim 38 wherein while the step of directing the continuous stream occurs, a potential difference between the continuous stream of the solution and the conductive layer of the workpiece is applied, and wherein the spray is incapable of providing an electrical path to the conductive layer, thereby ensuring that any removal of the conductive material from the front face of the workpiece occurs at a second rate that is less than the first rate.

42. The method according to claim 41 wherein the solution is a mild etching solution.

43. The method according to claim 41 wherein the steps of directing the stream and directing the spray are performed sequentially.

44. The method according to claim 41 wherein the steps of directing the stream and directing the spray are performed simultaneously.